

REMARKS

Favorable reconsideration of this application, as amended, is respectfully requested.

Claims 10-18 have been canceled without prejudice or disclaimer, and Claim 19 has been added. The claims have also been amended to address the alleged informality in Claim 1 and to improve the language more generally.

Without acceding to the outstanding § 103 rejections, Claims 1-9 have been amended to more clearly to recite certain distinctive features of the invention. Applicants respectfully submit that, at least as presently amended, the claims distinguish patentably from the prior art.

Claims 1 and 19 are directed to a memory card and recite, *inter alia*, a first process for adding error correction code to data which are written to non-volatile memory from an external device in response to a write access instruction from the external device, a second process for conducting error detection and correction on data which are read out, from non-volatile memory to the external device, in response to a read access instruction from the external device, and a third process for conducting error detection and correction on memory information stored in non-volatile memory. Claim 1 recites that the third process is controlled independently of one of the first process and the

second process, while Claim 19 recites that the third process is controlled independently of a process performed in response to an access corresponding to one of the read access instruction and the write access instruction from the external device.

Shinohara (USP 5,724,285), which is the basis for the outstanding § 103 rejection, discloses flash memory card 1 having flash disk controller 3 that refreshes data stored in flash memory 4 when a predetermined time has elapsed, such as a half year or a year. Data in each sector of flash memory 4 are read through ECC circuit 11, checked and then corrected data are written back to the appropriate sector. See, e.g., Abstract; Col. 2, line 60 to Col. 3, line 8; FIG 1; etc.

Shinohara fails to disclose whether flash disk controller 3 controls a first process that adds error correction code to data which are written to flash memory 4 in response to a write instruction from host 42. Shinohara also fails to disclose whether flash disk controller 3 controls a second process that conducts error detection and correction in response to a read instruction from host 42.

The Office Action asserts that it would have been obvious to one skilled in the art at the time the invention was made to modify the teachings of Shinohara to conduct

error detection and correction when reading out data from flash memory 4 in response to a read access instruction received from host 42. Reliability was the alleged motivation. See, Office Action at Page 3. Applicants respectfully disagree and submit that Shinohara teaches away from such modification: "Therefore, refreshing is not performed on a card frequently..." (Col. 3, lines 52-53, emphasis added). In fact, Shinohara contemplates refresh periods on the order of a half year to a year. See, e.g., Col. 4, lines 29-30, etc. Moreover, the Office has offered no art to support its conclusory assertion of obviousness.

Furthermore, Shinohara fails to teach or suggest a third process for conducting error detection and correction that is controlled independently of one of the first process and the second process, as recited by Claim 1, or independently of a process performed in response to an access corresponding to one of the read access instruction and the write access instruction from the external device, as recited by Claim 19.

Instead, Shinohara merely teaches that data stored in flash memory 4 are refreshed after a predetermined time has elapsed. Since Shinohara fails to disclose the first process and the second process, it follows that Shinohara also fails to teach or suggest that the third process may be

controlled independently of one of the first process and the second process. It also follows that Shinohara also fails to teach or suggest that the third process may be controlled independently of a process performed in response to a read or write access instruction.

Claims 1 and 19 thus clearly distinguish patentably from Shinohara as has been explained above. Moreover, none of the remaining references, taken either singly or in combination, is seen to teach or suggest the aforementioned features of Claims 1 and 19.

Accordingly, in view of the amendments presented herein, and for the reasons explained in the preceding remarks, Applicants submit that this application is in condition for allowance.

A Notice of Allowance is respectfully solicited.

The Commissioner is hereby authorized to charge to Deposit Account No. 50-1165 any fees under 37 C.F.R. §§ 1.16 and 1.17 that may be required by this paper and to credit any overpayment to that Account. If any extension of time is required in connection with the filing of this paper and

has not been requested separately, then such extension is
hereby requested.

Respectfully submitted,

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